



I HEREBY CERTIFY THAT THE DEPENDENT PARTIAL RECOVERY OF PREVIOUS SURVEYS BY THE UNITED STATES AND BY THE STATE OF FLORIDA AND THE PRELIMINARY SURVEYS OF HITHERTO UNSURVEYED LAND IN EVERGLADES NATIONAL PARK AND NEARBY AREAS, TOGETHER WITH THE REPORT RELATING THERETO, WERE MADE IN ACCORDANCE WITH INSTRUCTIONS ISSUED BY ME UNDER AUTHORITY FROM THE TRUSTEES OF THE INTERNAL IMPROVEMENT FUND OF THE STATE OF FLORIDA AND IN PURSUANCE OF SECTIONS 255.39-41, FLORIDA STATUTES, 1941.

APPROVED: *[Signature]*  
Nov. 2, 1949. CHIEF SURVEYOR

I HEREBY CERTIFY THAT THIS PLAT AND THE REPORT RELATING THERETO ARE ON FILE IN THE FIELD NOTE DIVISION OF THE OFFICE OF COMMISSIONER OF AGRICULTURE OF THE STATE OF FLORIDA, AS PROVIDED BY LAW. Nov. 2, 1949.

THIS MAP ADOPTED BY THE TRUSTEES OF THE INTERNAL IMPROVEMENT FUND OF THE STATE OF FLORIDA NOVEMBER 1, 1949, AS THE OFFICIAL MAP OF EVERGLADES NATIONAL PARK IN FLORIDA.

*[Signature]*  
DIRECTOR AND SECRETARY

**BASIC DATA:** COMPILED BY THE EVERGLADES LAND ACQUISITION OFFICE FROM THE 1933 GENERAL LAND OFFICE BASE MAP OF UNSURVEYED PUBLIC LANDS IN MONROE COUNTY, FLORIDA; EXISTING GENERAL LAND OFFICE PLATS; COAST AND GEODETIC SURVEY MAPS; SOIL CONSERVATION SERVICE MAPS; MAP BY TRUSTEES OF THE INTERNAL IMPROVEMENT FUND, STATE OF FLORIDA; OFFICIAL COUNTY MAPS OF DADE, MONROE AND COLLIER COUNTIES; OTHER COUNTY MAPS OF DADE, MONROE AND COLLIER COUNTIES; AND VARIOUS MAPS AND PLATS PREPARED BY LOCAL SURVEYORS.

Tallahassee, Florida

November 1, 1949

The Trustees of the Internal Improvement Fund met on this date in the Board Room, offices of the Governor, at the Capitol.

Present: Fuller Warren Governor  
 J. Edwin Larson, Treasurer  
 Richard W. Ervin, Attorney General  
 Nathan Mayo, Commissioner of Agriculture  
 F. C. Elliot, Engineer and Secretary  
 Sinclair Wells, Land Clerk

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Mr. Elliot reported that in January of this year the Federal Government started basic surveys of the lands within the boundaries of Everglades National Park; that he prepared the instructions for the survey and in August made a trip to Miami for the purpose of going over and checking the work done by the United States Engineers and the report prepared in connection with such survey, which report is the equivalent of field notes. Mr. Elliot displayed Base Map of the Everglades National Park prepared by the United States, and recommended that it be accepted by the Trustees as the official plat and as an official state survey, and the Report as the official field notes; for doing that which is needful it would be desirable that a resolution be adopted.

Motion was made by Mr. Larson, seconded by Mr. Ervin and duly carried, that the following resolution be adopted:

#### RESOLUTION

BE IT RESOLVED by the Trustees of the Internal Improvement Fund of the State of Florida that the dependent partial resurvey of official surveys of the United States and of the State of Florida, and the preliminary survey of the unsurveyed land in Everglades National Park and nearby areas executed by the Department of the Interior of the United States, the plat thereof entitled "Base Map, Everglades National Park, Florida, Revised April 11, 1949 to August 10, 1949," and the report of such survey by the cadastral engineer of the Department of the Interior, be accepted by the Trustees of the Internal Improvement Fund as an official survey of the United States and of the State of Florida, and that proper entry be made upon said plat and upon said report, authenticating the same, and be filed in the office of the Commissioner of Agriculture, all as provided by Section 253.39-41, F. S. 1941.

Mr. Elliot stated that the map and report, both in duplicate, will be authenticated and one of each will be filed in the office of the Commissioner of Agriculture in the usual manner, and the others will be delivered to Director Newton B. Drury of the National Park Service, Department of the Interior.

Mr. Elliot further suggested that it would be well to have photostatic copies made of the map and transmit one to the Clerk of the Circuit Court of each county having lands located within the Park area for recording in the public records of said counties.

Motion was made by Mr. Larson, seconded by Mr. Ervin, that the suggestion of Mr. Elliot be carried out. Upon vote the motion was adopted.

It was also suggested that copy of the map be filed with the Florida Board of Parks and Historic Memorials.

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Upon motion duly adopted, the Trustees adjourned.

Fuller Warren

Governor - Chairman

Attest: F. C. Elliot

Secretary

SURVEY OF UNSURVEYED LAND IN EVERGLADES NATIONAL PARK  
AND CERTAIN NEARBY AREAS

The accompanying plat is for illustrating the procedure described in the instructions which follow for the survey of unsurveyed land in the Everglades National Park and certain nearby areas. The plat, while prepared from the best information at hand, is not to be relied upon for accuracy in the actual or relative positions of lines, corners, or other objects.

Photostat copies of field notes and township plats of original surveys referred to in the instructions can be procured from the office of the Commissioner of Agriculture, Field Note Division, at Tallahassee, Florida, and should be in the hands of the surveyor before beginning the survey.

The instructions are of a general nature for outlining the procedure to be followed in the execution of the survey. The procedure is in general accord, as nearly as known conditions and special circumstances in the area permit, with the Manual of Instructions for the Survey of Public Lands of the United States. The surveyor should supply himself with a copy of the 1947 Manual.

In the conduct of the survey, special cases are likely to arise, not covered by the Manual or these instructions, in reconciling new and old surveys and surveys which include areas partly or completely surveyed by private surveyors which are not official, but based upon which the title to and description and location of land has long been based. As such cases develop, the surveyor should consult the Engineer for the Trustees of the Internal Improvement Fund as to the disposition to be made of the same.

To become official State surveys, if the work is done by private surveyors, such surveyors must have experience and qualifications acceptable to the Trustees of the Internal Improvement Fund, the work must be done in accordance with the instructions, and field notes and plats must be furnished of the standard described in the Manual of Instructions for the Survey of the Public Lands of the United States - all to be approved by the Trustees of the Internal Improvement Fund.

## PRELIMINARY OUTLINE OF

INSTRUCTIONS FOR THE SURVEY OF UNSURVEYED LAND IN EVERGLADES  
NATIONAL PARK AND CERTAIN NEARBY AREAS. TOWNSHIP EXTERIORS ONLY

All references to townships and ranges herein are for townships south and ranges east of Tallahassee Guide Meridian and Base Parallel.

Mark all township and section corners & quadrants for common corners unless otherwise specified.

Retracement and completion of township exteriors of townships partially surveyed S. of T. 53 and E. of R. 36.

- T. 59, R. 37: Retrace S. and E. boundaries, mons. at 80 chs. marked in quads for R. 37 only.
- T. 58, R. 38: Retrace 4 mi. S. on W. and complete S. 2 mi. of W., mons. at 80 chs. marked in quads for R. 37 only.
- T. 57, R. 38: Retrace W. bdy. Mons. at 80 chs. marked W. quads only for Rg. 37.
- T. 58, R. 38: Retrace S. bdy. E. 5 mi. N. bdy. and run W. 8th mi. for establishing NW corner.
- T. 56, R. 38: Retrace E. bdy. Mons. 80 chs. Mark W. quads only for R. 38. Establish N. bdy. Mons. marked S. quads only. Establish W. bdy. Mons. at 80 chs. marked W. quads. for R. 37, and if acceptable for cor. for R. 38, mark E. quads., otherwise double corners marked E. quads for R. 38.

Survey of unsurveyed townships 55 to 59 inclusive in Range 37, and the E. bdy. of the hiatus indicated to exist between R. 36 and 37.

In Range 37:

- T. 59: N. Bdy. - W. to NW corner. Mons. 80 chs. At NW cor. mark E. quads only.
- W. Bdy. - N. to NW corner. Mons. 80 chs. Mark E. quads only.
- T. 58: N. Bdy. - W. to NW corner. Mons. 80 chs. At NW cor. mark E. quads only.
- W. Bdy. - N. to NW cor. Mons. 80 chs. Mark E. quads only till at end of 4 mi. N. where mark SW quad Lot 3, NW quad. Lot 2, and thereafter to NW cor., Lots 2 and 1 toward N. R. 36½.
- T. 57: N. Bdy. - W. to NW cor. Mons. 80 chs. At NW cor. E. quads for T. 37. SW quad. Lot 1, NW quad. Lot 6, R. 36½.
- W. Bdy. - N. to NW cor. Mons. 80 chs. E. quads for R. 37, W. quads for 36½, 6 to 1 toward N.
- T. 56: N. Bdy. - W. to NW cor. Mons. 80 chs. At NW cor. E quads for R. 38, W. quads for R. 36½, 1 in SW, 6 in NW.
- W. Bdy. - N. to NW cor. Mons. 80 chs. E. quads for R. 37, W. quads for 36½, 6 to 1 toward N.

In Range 37 - continued:

T. 56: N. Bdy. - W. to NW cor. Mons. 80 chs. At NW cor. mark W. quads for R. 36 $\frac{1}{2}$ , 1 in SW, 6 in NW.

W. Bdy. - N. to NW cor. Mons. 80 chs. E. quads for R. 37, W. quads for 36 $\frac{1}{2}$ , 6 to 1 toward N.

Township 54 in Ranges 38 and 37 was surveyed by Southern Drainage District. While such survey has not been made official, the Taniam Trail and certain land locations are described with reference to the survey of these two townships and such may be used.

For the range line as W. bdy. of T. 54, R. 37, which becomes the E. bdy. of hiatus indicated between R. 36 and 37, the NW cor. of 54-37 should be found or determined, and the W. bdy. retraced to SW cor. Its bearing should be southward parallel to E. bdy. of T. 54, R. 38. It is unlikely that mons. on the line will be found, and since the land is unoccupied and no official survey has been made, it will answer the purpose to place mons. at 80 chs., marked in E. quads. for R. 37, and in W. quads. for R. 36 $\frac{1}{2}$ , 1 to 6 toward S., No. 6 appearing in both W. quads. at SW cor. to show that Lot 6 extends from NW cor. of T. 55.

T. 54 $\frac{1}{2}$ : Here a hiatus is indicated between T. 54 and T. 55. For establishing its W. bdy., connect SW cor. of T. 54 with NW cor. of T. 55.

S. Bdy. Hiatus between R. 36-37: From the SE cor. of T. 56, R. 36, previously established by U. S., project a line east to intercept the west bdy. of R. 37 established as hereinbefore described, and at such intersection a corner marked in SW quad to indicate the NE cor. of T. 59, R. 36. NW quad Lot 3 of T. 58, R. 36 $\frac{1}{2}$ .

For establishing the unsurveyed or partly unsurveyed exteriors of townships south of T. 54 to north of T. 61 west of the east boundary of R. 36.

T. 55, R. 32:

S. Bdy. - From SE cor. retrace S. bdy. Sec. 36 and continue west to SW cor. previously established by U. S.

T. 56, R. 32:

S. Bdy. - From SE cor. retrace E. 2 mi. and project west to SW cor.

W. Bdy. - From SW cor. N. to NW cor., or from NW cor. S. to SW cor.

T. 56, R. 31:

S. Bdy. - From SE cor. project west to Gulf.

T. 57, R. 32:

W. Bdy. - From NW cor. project south to Gulf or to normal SW cor., as case may be.

S. Bdy. - From SE cor. retrace S. bdy. Secs. 36, 35, 34 and continue west to Gulf, or to normal SW cor. as case may be, and if Gulf not reached, continue for S. bdy. T. 57, R. 31, and south for W. bdy. T. 58, R. 32.

T. 58, R. 34:

W. Bdy.- From NW cor. project south to SW cor. Mark SW cor. N. quads for T. 58, R. 33 and 34, S. quads for T. 58 $\frac{1}{2}$ , R. 33 and 34, Lot 7 in SE, Lot 1 in SW.

S. Bdy.- From SE cor. project S. bdy. to SW cor. N. quads for T. 58, R. 34. At SE cor. of T. mark the SE quad. Lot 1, the SW quad. Lot 2, and continue west in S. quad. through 7.

T. 58, R. 33:

W. Bdy.- From NW cor. project south to SW cor. Mark SW cor. north quads for T. 58, R. 33, S. quads for T. 58 $\frac{1}{2}$ , R. 33, Lot 6 in SE, Lot 1 in SW.

S. Bdy.- From SE cor. project west to SW cor. Mons. N. quads for T. 58, S. quads for 58 $\frac{1}{2}$ , 1 to 6, E. to W.

T. 58, R. 32:

S. Bdy.- From SE cor. project west to Gulf. N. quads marked for T. 58 and S. quads for T. 58 $\frac{1}{2}$ , Lots 1, 2, 3, etc. E. to W. At the intersection of S. bdy. with Gulf, erect a marker sufficiently high to be above trees, if such be practicable. Target at top facing S. This is for the purpose of observing this corner from the western extremity of the S. bdy. of T. 58 $\frac{1}{2}$ , R. 32, later to be described.

In reference to T. 59, R. 36 and T. 59, R. 35, these two townships have been previously surveyed unofficially in part and lands located by private surveys based upon the S. bdy. of T. 58, R. 35 and 36. To avoid disturbing land descriptions and locations, these surveys are to be recognized as far as practicable.

Sec. cor. for T. 59 appear to require double cor. on the T. line between T. 58 and T. 59. Examination in the field will determine the best disposition to be made for the location of the Sec. cor. for T. 59 in R. 36 and 35 so as not to disturb the location and description of lands previously surveyed within these two townships.

T. 60, R. 36:

The R. line between R. 37 and 36 in T. 60 and the NW cor. of T. 60, R. 37 having been established by the U.S., the said cor. under normal conditions becomes the NE cor. of T. 60, R. 36, and the Sec. cor. on the R. line become common for both ranges.

It may be necessary to examine such parts of the N. bdy. of T. 61 in R. 36, 35, 34, 33, 32 as necessary for ascertaining its true bearing.

N. Bdy.- Project westward from NE cor. parallel with S. bdy. A hiatus is indicated between T. 59 and 60. Mark the mons. S. quads for T. 60, N. quads for 59 $\frac{1}{2}$ , 1 to 6, E. to W.

W. Bdy.- Project southward parallel to E. bdy. to Gulf.

T. 60, R. 35:

N. Bdy.- Project westward from the NE cor. parallel to S. bdy. Mons. S. quads. for T. 60, N. quads. for 59 $\frac{1}{2}$ , 1 to 6, E. to W.



T. 60, R. 34:

Numerous land ownerships in this T. in R. 34, 33, 32<sup>and</sup> in T. 61 of the same ranges are described and located with respect to a survey by J. O. Fries in 1910. Though not an official survey, it has been recognized as a basis for land location for many years. It is highly desirable to avoid disturbing land titles, locations and descriptions based on such survey.

W. Bdy.-- From SW cor. project N. to NW cor. Mons. at 80 chs or till White Water Bay is encountered, at which a M.C. is to be set. Omit meander of Bay.

N. Bdy.-- From NW cor. of T. 60, R. 35, taken as the NE cor. of T. 60, R. 34, project W. to White Water Bay and set M. C. Omit meander.

T. 60, R. 33:

W. Bdy.-- From SW cor. by Fries project northward parallel to E. bdy. to NW cor. or to White Water Bay, if encountered at less distance. M.C. No meander.

N. Bdy.-- Such part as lies on land by method found to be practical.

T. 60, R. 32:

N. Bdy.-- Project westward from NE cor., normal or fractional, parallel with S. bdy. by most practical method to NW cor.

W. Bdy.-- From NW cor. S. to Gulf. M.C. No meander.

T. 60, R. 31:

N. Bdy.-- From <sup>NE</sup> NW cor. W. to Gulf. M.C. No meander.

T. 59 in R. 34, 33, 32, 31:

These townships lie for the most part in White Water Bay. The difficult terrain, low land values and complete lack of settlement and land use does not justify usual survey practice or accuracy within the normal limits.

NE Cor.-- It will answer the purpose to calculate the position of this cor. from the distance across Hiatus 59 $\frac{1}{2}$  plus the distance on W. bdy. of T. 59, R. 35 to make 480 chs. and establish the NE cor. for T. 59, R. 34 on the W. bdy. of T. 59, R. 35.

E. Bdy.-- Developed as above described.

N. Bdy.-- Best information of terrain here indicates that it will be practical to project line W. to NW cor. From that cor. determine the margin of White Water Bay to W. and S. and discontinue survey in this locality.

T. 59, R. 32:

W. Bdy.-- From SW cor. project N. to NW cor. or to Gulf, as case may be, if Gulf reached short of normal corner.

N. Bdy.-- If Gulf reached on W. bdy. short of normal NW cor., ascertain position on N. bdy. where line reaches Gulf. This point marks the west extremity of the unsurveyed portion of N. bdy. T. 59 in the affected ranges.



T. 58 $\frac{1}{2}$  in R. 34, 33, 32:

- E. Bdy.-- has been established as part of W. bdy. of T. 58, R. 35 .
- N. Bdy.-- has been determined as the S. bdy. of T. 58 in the respective ranges.
- S. Bdy.-- has been determined in part and the western extremity of unsurveyed portion marked.
- W. Bdy.-- is the Gulf. For ascertaining the width of 58 $\frac{1}{2}$ , if such be practical, observe the SW cor. on the Gulf of T. 58, R. 32, and by triangulation, or otherwise if more convenient, determine the N.-S. width of the hiatus. (Reference SW cor. T. 58, R. 32.)

Adopted by Trustees of the  
Internal Improvement Fund  
January 9, 1948.

*J. G. Elliot*  
J. G. ELLIOT  
Engineer and Secretary  
Trustees I.I. Fund  
Tallahassee, Florida

SUGGESTED SURVEY PROCEDURE  
IN CONNECTION WITH EVERGLADES NATIONAL PARK

In connection with Everglades National Park, the survey instructions covering certain lands south of Township 54, west of east boundary Range 36, the hiatus between ranges 36 E. and 37 E. south of Township 53 and certain townships bordering thereon to the eastward, may be modified as follows to meet immediate requirements:

AS TO WHITE WATER BAY AREA AND HIATUS 56½

While this area is in the park interior and no park boundaries are affected, yet owing to the desirability of mapping the White Water Bay area and for determining land ownership, it may be that this area should be surveyed to such extent and in such manner as will meet practical requirements for these purposes. If such survey and mapping be undertaken, the procedure next described will meet requirements so far as the State is concerned in its relation to Everglades National Park.

Ascertain on the ground with closest practical accuracy the latitude and longitude of positions of known locations on south boundary of T. 56 and north boundary of T. 61 West of R. 35. Therefrom calculate the latitude and longitude position for such corners as may be necessary and mark such as may be selected with targets suitable for use as control points for aerial surveys.

Thereafter the work may be completed by aerial surveys with sufficient accuracy and detail for the purpose. If deemed warranted, other parts of the area south of T. 54 and west of R. 37, except T. 59 in R. 36 and 35, may be treated likewise.

F. C. ELLIOT  
Engineer and Secretary  
Trustees I.I. Fund  
Tallahassee, Fla.  
May 24, 1948

**SUGGESTED SURVEY PROCEDURE  
IN CONNECTION WITH EVERGLADES NATIONAL PARK**

In connection with Everglades National Park, the survey instructions covering certain lands south of Township 54, west of east boundary Range 36, the hiatus between ranges 36 E and 37 E south of Township 53 and certain townships bordering thereon to the eastward, may be modified as follows to meet immediate requirements:

**AS TO WHITE WATER BAY AREA AND HIATUS 58+**

While this area is in the park interior and no park boundaries are affected, yet owing to the desirability of mapping the White Water Bay area and for determining land ownership it may be that this area should be surveyed to such extent and in such manner as will meet practical requirements for those purposes. If such survey and mapping be undertaken, the procedure next described will meet requirements so far as the State is concerned in its relation to Everglades National Park.

Ascertain on the ground with closest practical accuracy the latitude and longitude of the southwest and southeast corners of Township 58 S in Ranges 35 and 36 E, previously established by United States survey, the positions of which can be calculated from nearest known points of government surveys.

In like manner the location of the north boundary of Township 59 S may be ascertained with respect to the north boundary of Township 61 S and the resulting hiatus between Townships 58 S and 59 S determined.

Since these areas are within the interior of Everglades National Park, monuments on the ground to mark control points, at the southeast corner of Township 58 S, Range 36 E, the southwest corner of Township 58 S, Range 36 E, or some monument on the township line as near such location as practicable, the northeast corner of Township 59 S, Range 36 E, and the northwest

corner of Township 59 S, Range 32 E or a marker as near such corner as may be practicable, together with such intermediate markings as may be required as fixes for aerial mapping, should answer temporarily or perhaps permanently.

AS TO HIATUS 36 $\frac{1}{2}$  AND ADJACENT TOWNSHIPS EAST

Since the hiatus and townships east of the east boundary of Range 36 E here described affect E. N. P. boundary location, it may be that all lines should be surveyed on the ground and marked, but for approximate purposes a combination of geodetic and aerial surveys may be used.

Details relating to accurately locating physical markings on the ground to which aerial surveys may be tied and oriented are left for determination when actual survey is begun.

A REPORT ON THE MAPPING OF  
EVERGLADES NATIONAL PARK

A REPORT ON THE MAPPING OF  
EVERGLADES NATIONAL PARK

August 20, 1949

Pursuant to the act of Congress, approved September 22, 1850, by Patent No. 137 dated April 29, 1903, some 2,800,000 acres of swamp and overflowed land, lying generally south of Lake Okeechobee, were patented to the State of Florida.

Some entire townships of these lands had been surveyed at that time by the General Land Office. The township boundaries, only, of others had been so surveyed. However, the vast majority of these lands had not been covered by Official Government Surveys at the time of their transfer to the State.

During the period intervening since these lands were patented to the State, the Trustees of the Internal Improvement Fund of the State of Florida, the State agency which administers these State-owned lands, has adopted several maps and issued instructions regarding the survey and platting of these lands. The maps thus adopted are, generally, only projections of what was believed to be the location and position of various land lines at the time the particular map was officially approved.

The maximum boundary of Everglades National Park, as authorized by the act of May 30, 1934 (48 Stat. 816) includes the southernmost portion of the lands included in Patent No. 137, as well as many keys and islands and surrounding waters in Florida Bay. The maximum authorized area covers approximately 1,400,000 acres of land and 600,000 acres of water. The designated minimum boundary, as authorized by the act of December 6, 1944 (58 Stat. 794), includes approximately 600,000 acres of land and 400,000 acres of water. The park, as established pursuant to Secretarial Order of June 20, 1947, has a gross area of approximately 450,000 acres.

Only a very small percentage of the approximately 2,000,000-acre maximum gross area is covered by Official Government Survey. Parts of the remainder are covered by "official" and "unofficial" State Surveys and immense areas, lying chiefly in Monroe County, are unsurveyed.

During the summer of 1947, the National Park Service set up in Miami a Land Acquisition Staff whose function was to obtain all needed data and enter into negotiations for the acquisition of approximately 360,000 acres of privately-owned land lying within the 1964 boundary.

As a result of the lack of accuracy in the maps prepared by the State to show the extent of the lands included in Patent No. 137; the small coverage of official Government surveys; the lack of complete authentic information covering the surveys made by and for the State; and the general inconsistencies in the tying together of various survey data, the Land Acquisition Staff found themselves faced with tremendous mapping problems.

After nearly two years of painstaking work, involving the study of all available information supplied by the State, the searching of land records of three Counties, including abstracts and title certificates, the study of plats and maps prepared by those Counties, the study of survey notes and maps prepared by various local surveyors, the study of plats purporting to show the larger land holdings, and the complete assembly of all available information, the Land Acquisition Staff has completed the task of preparing a 1/2-inch per mile base map covering the maximum gross park area. In addition, the Staff has virtually completed the projection of land lines on various Coast and Geodetic maps and aerial photographs prepared at a scale of 3.17 inches per mile for exhibit purposes. These latter maps will be particularly useful in showing discrepancies in survey data, hiatuses and the extent of sovereignty lands. Since the Coast and Geodetic Survey maps cover only the coast line and short distances inland therefrom, it is fortunate that most of the probable controversies will be limited to coastal and nearby areas. Also, township plats of each township within the present acquisition area have been prepared. These plats are at 3.17 inches per mile and show topography, property lines, tract numbers and other data pertinent to the acquisition program.

The writer, as a Cadastral Engineer, and employed by the National Park Service in the capacity of Assistant Chief, Real Estate Branch, Land and Recreational Planning Division, was assigned to the Land Acquisition Office to check the preparation of this base map and the special purpose maps as to the sources of information, the application of this information as to the map platting, and projection and drafting procedure. The work was started on Monday, July 18, and completed on Saturday, August 20.



It was determined that there were five interrelated problems that needed to be disposed of in order to dispose of the entire mapping problem. While there are points in one problem that are repeated in one or more of the others, the breakdown into five problems seemed to the writer to be the most sensible approach and conclusion in order to clarify all points raised, to the satisfaction of all concerned.

As will be noted hereinafter, the report is broken down into Problems Nos. 1 to 5, inclusive, and various subsections thereof, and two special problems relating directly to the mapping problem and our disposition of each one. There follows next the writer's presentation of the five mapping problems in sequence and other related problems, as he sees them, and his disposition of each.

#### PROBLEM NO. 1

##### A - IDENTITY AND POSITION OF TOWNSHIP LINE BETWEEN TOWNSHIPS 60 and 61 SOUTH, RANGES 31, 32, 33, 34, 35, 36, 37, 38 and 39 EAST

Township 60 South, Range 37 East was surveyed by the United States in June 1874. In 1903 U. S. Deputy Surveyor J. O. Fries surveyed, for the State of Florida, the townsite of Flamingo and other nearby areas. By deed of August 4, 1914, and recorded in Deed Book "8", Page 475 of the Monroe County Records, the Model Land Company, the successor to the Florida East Coast Railway Company, which Company was successor in title to the State of Florida, conveyed certain land to Ward A. Roberts in the Flamingo area. The land is described in part:

"Beginning at a point in the line between Sections 32 and 33, Township 60 South, Range 34 East, which point is 5,280 feet north of Section corner common to Sections 32 and 33, said Township and Range and Sections 4 and 5 in Township 61 South, on the South line of Township 60 South, the said township line being that established by J. O. Fries, in certain surveys for the State of Florida" (Underlining supplied).

On the print of the Fries survey of the townsite of Flamingo the following certificate appears:

"State of Florida, County of Brevard, ss. I, John O. Fries, Dep. U. S. Surveyor and Special Agent County Surveyor in and for the County of Brevard, do hereby certify that this map truly

and correctly represents all the claims at present taken on the unsurveyed lands within the territory embraced on this map and that the names of the claimants are correctly marked on the lands claimed at the time, October 1903, when this survey was made.

And I do further certify that the lines representing townships, ranges and sections with subdivisions are the best and most practical way connecting with the nearest U. S. Survey of Township 60 South, Range 37 East (Under-scoring supplied).

Titusville, Brevard Co. Fla.

Oct. 21, 1903

(Signed) J. O. Fries

The above indicates that the north line of Township 61 was established by correct methods and that this line is also the south line of Township 60.

Further supporting this position, we find that Mr. Fries, in 1903, surveyed and prepared a map showing the location of H. C. Law's and S. W. Davis' claims near Cape Sable, Monroe County, Florida. These claims lie in Township 61 South, Range 32 East.

Again, in 1910, Mr. Fries made surveys and prepared plate of Township 60 South, Range 32 East, showing claims of S. H. Raulerson and S. G. Raulerson, and claim 227 to J. A. Waddell. (This latter claim extends southward into Township 61 South); also Township 61 South, Range 32 East, showing claim 219 of D. W. Gallup, transferred to J. A. Waddell. (The Gallup claim 219 also extends northward into Township 60 South); and Township 60 South, Range 31 East, showing claim of R. T. Raulerson and J. E. Raulerson, transferred to J. A. Waddell.

Moreover, Deed No. 16,396 from the Trustees of the Internal Improvement Fund to the Florida East Coast Railway Company, dated December 14, 1912, conveys lands in Townships 59, 60 and 61 South. In the listing of Sections conveyed, the deed recites (page 3) "all of Section 32 not conveyed by the Trustees of the Internal Improvement Fund of the State of Florida to Jas. A. Waddell, July 20, 1903, in Deed No. 15,834," and again (page 4) "all fractional Section 5 not conveyed by Trustees of the Internal Improvement Fund of Florida to Jas. A. Waddell, July 20, 1903, in Deed No. 15,834." These parcels are those referred to in the paragraph above.

Furthermore, attached to the deeds and plats referred to above is the following certificate:

"I, Nathan Mayo, Commissioner of Agriculture of the State of Florida, hereby Certify that, as such officer, I am the legal custodian of the records of deeds and papers pertaining to the Public Lands of said State and of all patents and approved lists issued by the United States of America to the State of Florida of all lands granted to the State under the several Acts of Congress; and that the attached are true and correct photostatic copies of township plats of Township 60 South, Range 31 East; Township 60 South, Range 32 East, and Township 61 South, Range 32 East, on which are shown the field notes and covering the lands contained in Deed No. 15,834 from the Trustees of the Internal Improvement Fund of the State of Florida to James A. Waddell, bearing date of July 20, 1903; all of which is shown by the records on file in this office and in my custody as aforesaid.

IN TESTIMONY WHEREOF, I have hereunto set my hand, officially, and have caused to be affixed hereto the seal of the "DEPARTMENT OF AGRICULTURE OF THE STATE OF FLORIDA", at the Capitol, in the City of Tallahassee, on this the 19th day of March, A. D. 1946.

(SEAL)

(Signed) Nathan Mayo  
(Typed) Nathan Mayo  
Commissioner of Agriculture"

It seems, therefore, that we have now established unquestionably the fact that the north line of Township 61 South and the south line of Township 60 South through Ranges 31, 32, 33, 34, 35, 36, 37, 38 and 39 East, are one and the same; that this line was established by proper methods by the General Land Office in part and by Fries in part; and that the Fries surveys were accepted by the State of Florida, the agency that had final authority over these lands that were unsurveyed prior to the Fries Surveys.

3 - THE PROJECTION OF NORMAL SECTIONS NORTHWARD FROM THE TOWNSHIP LINE BETWEEN TOWNSHIPS 60 AND 61 SOUTH; AND THE LOCATION OF THE ELATUS NORTH OF THE NORTH LINE OF TOWNSHIP 59 SOUTH THROUGH RANGES 31, 32, 33 and 34 EAST.

In a letter of May 29, 1947, to the Regional Director, Region One, National Park Service, Mr. Fred C. Elliot, Secretary and Engineer

of the Internal Improvement Board, State of Florida, wrote in part as follows:

"The unsurveyed portion of the lines are projected in accordance with the procedure followed by the State in the survey of its public lands, which procedure is based upon Department of the Interior's "MANUAL OF INSTRUCTIONS FOR SURVEY OF THE PUBLIC LANDS OF THE UNITED STATES." Surveys have been made by the United States extending southward to the South boundary of Township 58 South, Range 35 East. Between the South boundary of Township 58 and the North boundary of Township 61, West of Range 37, no surveys except those of a private nature have been made. Procedure for surveys of the unsurveyed lands north of Township 61 would be northward, dividing the area into townships of normal size and accounting for the area between the North boundary of Township 59 and the South boundary of Township 58 as a hiatus. Another reason for extending the township surveys northward from the existing North boundary of Township 61, instead of locating the hiatus between Townships 60 and 61, is that a number of private land claims and holdings are located with respect to surveys based upon said Township line as the South line of Township 60 and thereby avoid upsetting present land descriptions."

During the period of approximately a year following this letter, there was much study by and considerable correspondence between Mr. Elliot and Mr. L. M. Gray, former Land Acquisition Project Manager, Everglades National Park, on the subject of State of Florida surveys. Mr. Elliot, with his letter of May 26, 1948, forwarded to Mr. Gray the following material relating to surveys and platting of the unsurveyed land in the park area and vicinity:

- (1) Survey of Unserved Land in Everglades National Park and Certain Nearby Areas.
- (2) Preliminary Outline of Instructions for the Survey of Unserved Land in Everglades National Park and Certain Nearby Areas. Township Extenters Only.
- (3) Suggested Survey Procedure in Connection with Everglades National Park.
- (4) A map attached to and made a part of the above material, which shows the outline of townships both surveyed and unserved and the location of various hiatuses. This

map bears the date of January 6, 1948, and was prepared by Mr. F. O. Elliot, Engineer, Trustee of the Internal Improvement Fund, which is the State of Florida agency having responsibility over the State-owned lands.

It should be noted particularly that the map furnished by Mr. Elliot shows normal townships only.

Deed No. 16,396 conveyed to the Florida East Coast Railway Company 260,007.34 acres of which 50,007.34 acres are, according to the deed description, north of the maximum boundary of the Everglades National Park, leaving a balance of 210,000 acres within the maximum area and mostly within the present acquisition area. The deed lists "sections," "fractional sections," and "lots" in the following townships and ranges, making up a total of 210,000 acres:

Township 60 South, Range 31 East
Township 59 South, Range 32 East
Township 60 South, Range 32 East
Township 61 South, Range 32 East
Township 59 South, Range 33 East
Township 60 South, Range 33 East
Township 61 South, Range 33 East
Township 59 South, Range 34 East
Township 60 South, Range 34 East
Township 61 South, Range 34 East
Township 59 South, Range 35 East
Township 60 South, Range 35 East
Township 61 South, Range 35 East
Township 59 South, Range 36 East
Township 60 South, Range 36 East
Township 61 South, Range 36 East
Township 60 South, Range 37 East
Township 60 South, Range 38 East

By assuming that each full Section contains 640 acres (and according to Mr. Elliot, a part of whose letter has been previously quoted, the area was divided "into townships of normal size and accounting for the area between the North boundary of Township 59 and the South boundary of Township 58 as a hiatus") (underlining supplied), we have calculated the area to be 217,270 acres. This compares with the "estimated" area of 210,000 acres cited in the deed and is further evidence of the intention of the State to convey only normal townships and sections. Had the State intended to convey 800-acre Sections, as laid out by A. B. Livingston of Homestead, Florida, who made surveys for the Model Land Company, and others, the deed would have recited logically an acreage in excess of 300,000 acres.

On June 14, 1907, the Trustees of the Internal Improvement Fund adopted the following resolutions:

"Resolved, By the trustees of the internal improvement fund of the State of Florida, that the township, ranges and sections of the official map of the Everglades adopted by the trustees under date of January 2, 1905, and as amended by resolution of said trustees on June 10, 1907, embracing the lands in the United States Patent No. 137, be and the same are hereby adopted and ratified as the townships, ranges and sections of said map, which townships, ranges and sections as the same appear to be designated and determined by projecting on said map the township, range and section lines of the original United States survey as the same appears on said map, and that the sections indicated on said official map of the Everglades, as adopted by the trustees of the internal improvement fund of the State of Florida, as aforesaid, be numbered similarly and under the same plan and system as sections are numbered under the township, range and section system adopted by the United States, and of the same force and effect, beginning with Section one (1) and continuing to Section thirty-six (36) inclusive, fractional townships to be numbered under the same system, being designated by such numbers as will make them uniform with the system of the United States.

"This resolution to be written on the official plats or maps and signed by the trustees, where such official plat is furnished by or under the direction of the trustees." "Minutes I. I. Fund, Vol. 7, pp. 70 and 71."

Further, on December 23, 1912, the Trustees adopted "Amended Instructions for surveying the Land Embraced in United States Patent No. 137", known as the Everglades patent from which the following is taken:

"There, be it resolved, that the instructions heretofore issued be, and the same are hereby amended so as to subdivide the land embraced in the United States Patent No. 137 into townships six miles square, each township containing 36 sections of 360 acres each, as near as may be, and the same be made to conform as nearly as practicable to the United States requirements in regard to the survey of public lands, and that the surplus found to exist be placed as shown on the accompanying map, as near as practicable; the object of the map being to show the general plan of the survey and the general distribution of the surplus, if any. Said map to be filed in the office of the secretary of the trustees." "Minutes Trustees I. I. Fund, Vol. 9, p. 628."

Under date of April 11, 1906, the Trustees of the Internal Improvement Fund conveyed to Joseph Jennings lands in the following townships:

Township 56 South, Range 31 East  
Township 57 South, Range 31 East  
Township 57 South, Range 32 East  
Township 58 South, Range 31 East  
Township 58 South, Range 32 East  
Township 59 South, Range 31 East  
Township 59 South, Range 32 East  
Township 60 South, Range 31 East  
Township 60 South, Range 32 East

The deed lists the sections and fractional sections and total acreage conveyed in each township; for example in Township 60 South, one section--No. 1-- was conveyed and the acreage is shown as 640, and in Township 60 South, Range 32 East, Sections 6, 7 and 8 were conveyed and the acreage given as 1,920 or three normal sections.

Under date of May 4, 1906, most of these lands were conveyed by Joseph Jennings to the Palgrove Company, a New Jersey Corporation.

From the above it appears that it has been established that the State, as far back as 1906, conveyed only normal townships and sections in its subdivision of the lands which was patented to it by the United States as unsurveyed lands. Its deeds to Joseph Jennings, predecessors to the Palgrove Company, in 1906, and to the Florida East Coast Railway in 1912 prove this undoubtedly. It has been further established that normal sections have been projected eastward from Township 60 South, Range 37 East and northward from the south line of Township 60 South to the hiatus between Township 59 and 58 South.

Furthermore, prior to the time of negotiations between the United States and the Model Land Company, that Company had recognized the fact of 640 acres only per section by its oil lease of April 30, 1944, to J. P. Scranton. This lease specifically calls for 640-acre sections.

0 - THE PLACEMENT OF THE TOWNSHIP LINE BETWEEN  
TOWNSHIPS 60 and 61 SOUTH UPON MAPS PREPARED  
BY THE COAST AND GEODETIC SURVEY AND THE PRO-  
JECTION THEREON OF THE SECTION AND RANGE  
LINES AND THE HIATUS NORTH OF THE NORTH LINE  
OF TOWNSHIP 59 SOUTH, RANGES 31, 32, 33 and 34  
EAST.

We are now prepared to begin the plotting of the various surveys upon our base map of 1/2-inch per mile and any other map that can



1946, the Biscayne Engineering Company made a survey of the lands lying on both sides of U. S. Highway No. 1 where this road traverses Township 57 South, Ranges 38 and 39 East; Township 58 South, Range 39 East; Township 59 South, Range 39 East; and Township 60 South, Range 39 East. By scaling distances indicated on this map and applying them to the Coast and Geodetic Survey Map, we find that the township line between Townships 60 and 61 South lies along the same line as may be projected eastward from its location previously fixed.

Moreover, by comparing the old General Land Office plats of Township 60 South, Range 37 East; Township 60 South, Range 38 East and Township 60 South, Range 39 East, with the Coast and Geodetic Survey maps of the same area, we find that they compare very favorably as to location of coast line and various Keys in many places. This is true in spite of the facts that the surveys of the lands, as shown on the General Land Office plats, were made in 1874 and that the many hurricanes occurring since 1874 have changed the coast line appreciably in various places.

Also, by scaling the distance from this township line, as shown on the "Map to Accompany Report on the Unsurveyed Public Lands, Monroe County, Florida", scale 1/2-inch per mile, prepared by the General Land Office of the U. S. Department of the Interior in 1933, to the 25°10' parallel of latitude and projecting this same distance on the Coast and Geodetic Survey Map, we place the township line in the same location as previously shown by other means.

We also project Township 60 South, Ranges 38 and 39 East and Township 59 South, Range 39 East, easterly to and beyond the park boundary at U. S. Highway No. 1. As a check on our projection, we find that the center of U. S. Highway No. 1 is, approximately, 13,250 feet (scaled) easterly along the township line from the common township corner of Townships 59 and 60 South, Ranges 38 and 39 East. This distance is shown on the Biscayne Engineering Company map as 13,303 feet.

It has been shown above that no hiatus exists between Townships 60 and 61. In his letter to the Regional Director of May 29, 1947, Mr. Elliot refers to "the existing North boundary of Township 61" and to the progression from there northward through Townships 60 and 59 for a distance of twelve miles or two normal townships to the south line of the hiatus. This places the East-West hiatus, through Ranges 31, 32, 33 and 34, between Townships 58 and 59. While Mr. Elliot cites no authority for the statement that "procedure for surveys of the unsurveyed lands north of Township 61 would be northward," he does give

a reason for this procedure when he indicates that it was done to avoid "upsetting present land descriptions." Moreover, the State could subdivide its unsurveyed public lands in any way it elected to do so and Mr. Elliot's statement clearly indicates what that election was. Further proof as to the existence and location of this hiatus will be given later.

We now project true townships and sections westerly from Township 60 South, Range 37 East, to the Gulf of Mexico; southerly from the township line between Townships 60 and 61 South, Ranges 32 to 39 East to Florida Bay; and northerly from the same township line, Ranges 31, 32, 33 and 34 East to the north line of Township 59 South. We also project the hiatus north of the north line of Township 59 South, through Ranges 31, 32, 33 and 34 East in accordance with the Internal Improvement Fund map dated January 6, 1948. The extent of the hiatus will be covered in our disposition of Problem No. 4.

#### PROBLEM NO. 2

##### A - VERIFICATION OF THE EXISTENCE OF THE FRACTIONAL TIER OF SECTIONS ALONG THE WEST LINE OF TOWNSHIP 59 SOUTH, RANGE 35 EAST.

The General Land Office surveyed, in 1874, the lands in Township 59 South, Range 38 East; Township 59 South, Range 39 East; Township 60 South, Range 37 East; Township 60 South, Range 38 East, and Township 60 South, Range 39 East. Plans of these surveys were approved by J. A. Gilbert, Surveyor General for Florida, on February 1, 1875.

The distances recited on the plans along the south line of Township 59 South, Ranges 38 and 39 East, correspond with the distances recited along the north line of Township 60 South, Ranges 38 and 39 East. This proves that there are no offsets in the range lines between Ranges 37 and 38 East and between Ranges 38 and 39 East through Townships 59 and 60 South.

In spite of survey difficulties, because of marshy and inundated terrain, there is evidence that the range line between Ranges 38 and 39 East has been extended northward from the south line of Township 59 South to the vicinity of Homestead.

The Biscayne Engineering Company plat (referred to previously in Problem No. 3) shows ties from U. S. Highway No. 1 to this range line in several places. This highway is tied to this line very definitely at the common township corner of Townships 58 and 59 South, Ranges 38 and 39 East. This common corner is shown as being a 2-inch galvanized pipe and 6700 feet from the center of U. S. Highway No. 1.

A further good indication that the range line between Ranges 38 and 39 East has been long considered a definite established line is the fact that Krome Road follows it northward all the way from the Homestead vicinity to the Tamiami Trail. All available maps, either prepared by Dade County officially or a result of local surveys, show this road located thus. This will be elaborated on in our disposition of Problem No. 3.

The plat, prepared by A. R. Livingston in March 1920 and amended in April 1923, showing the Cape Sable district of Monroe County, shows a fractional tier of sections along the west line of Township 59 South, Range 35 East. Although Mr. Livingston's notes cannot be found, it seems very logical to assume that these sections were not verified as fractional from surveys carried from the west, since all sections south of the north line of Township 60 South have been shown previously to be full sections. Although, as previously indicated, Mr. Livingston projected 800-acre sections north and south in error, it appears that the fact that he shows the tier of sections in question to be only  $3/4$ -mile wide east and west is correct and can be substantiated by another survey as hereinafter explained. It seems most likely that Mr. Livingston, who resided in Homestead for many years, carried his survey from the Homestead vicinity (logically from the range line between Ranges 38 and 39 East) westerly and southerly along the Ingraham Highway until he arrived at the point where this highway runs westerly in Section 28, Township 60 South, Range 34 East. There he found that he was  $1/4$ -mile short. Since the Fries survey, previously covered, had shown the sections in this latter township to be full sections, he found it expedient to backtrack and place the fractional sections at the most logical place, which was along the west line of Range 35 East.

In any event, the Biscayne Engineering Company set out in 1945 to verify the existence of this fractional tier of sections. This Company carried a survey from the east along the Ingraham Highway. This survey was very accurate, the chaining having been done to tenths of feet and the angles turned to seconds. Their notes have been plotted and distances calculated and checked. From these calculations, it has been proven that it is 8.001 miles from the range line between Ranges 36 and 37 East, where the highway crosses this line, to the west line of Sections 23, 26 and 35, where the highway runs north and south along this line.

Again, it is shown by calculation that it is 15.75 miles from the so-called Flamingo Canal, which lies along side of the Ingraham Highway, where it runs north and south along the west line of Section 31, Township 60 South, Range 34 East, to the west line of Township 59 South, Range 37 East. Therefore, it necessarily follows that it is only 11.75 miles from the range line between Ranges 36 and 37 East to the west line of Township 60 South, Range 35 East.

Again, by plotting the township and section lines as thus fixed on aerial photographs of 3.167 inches per mile, we find that these lines fall upon such physical features as canals, ditches and roads which are easily visible on the photographs. Since the terrain generally, throughout the area, varies only slightly, it seems safe to say that these physical features were not located on the section lines or subdivisions thereof by accident but were so located by design. Of particular significance is the fact that the plotting on the aerial photograph places the range line between Ranges 36 and 37 East so that it exactly coincides with a ditch which runs southward for one mile from the township line between Townships 58 and 59 South at the point where the Ingraham Highway jogs as it runs westerly crossing this range line.

Further, the Official Map of Dade County, Florida, prepared in 1945 and bearing the signature of the County Engineer and approved by the Chairman of the Board of County Commissioners, shows the east-west and north-south roads lying on the section lines or subdivisions thereof.

It seems, therefore, that the existence and location of the fractional tier of sections along the west line of Township 59 South, Range 35 East has been proven.

B - THE VERIFICATION OF THE EXISTENCE  
OF AN OFFSET IN THE RANGE LINE BE-  
TWEEN RANGES 36 AND 37 EAST WHERE  
IT CROSSES THE TOWNSHIP LINE BE-  
TWEEN TOWNSHIPS 59 AND 60 SOUTH

It has been shown, from computations from the Biscayne En-  
gineering Company survey notes that it is only 11.75 miles between the  
range line between Ranges 36 and 37 East north of the north line of  
Township 60 South, and the west line of Township 58 South, Range 35 East.

In the disposition of Problem No. 1, it has been shown that the distance between these range lines south of the north line of Township 60 South is 12.0 miles.

Therefore, there is a 0.25-mile offset to the west in his range line northward from the north line of Township 60 South.

Since there is no offset in the range line between Ranges 37 and 38 East, we must conclude that the south line of Township 59 South, Range 37 East is 6.25 miles long.

Much thought has been given regarding the proper method of distributing the excess 0.25-mile of distance. Normal survey procedure would throw it into the westernmost tier of sections. However, since the land within this Township and within the present acquisition area has already been acquired from the Vodel Land Company, it was decided that the excess would, for map purposes, be distributed in each section proportionately. By so doing, if the base map of 1/2-inch per mile were ever used for exhibit purposes, no one section within the township would appear at casual glance to be any larger than any other section.

Furthermore, since the northwesterly portion of the township has already been subdivided into normal 1-mile sections and lands sold off accordingly, it was felt that we must conform our map projections to existing conditions as far as possible in order to reduce to a minimum the possibility of our becoming involved in any controversy on land lines as recited in various deeds to private parties that have been on record for a considerable number of years. Moreover, any land within the township that lies between the minimum boundary (the present acquisition boundary), and the maximum boundary that might be acquired in the future, would be acquired by deed description and no difficulty caused by the excess distance along the south line is foreseen in closing such acquisitions.

C - THE LOCATION AND EXTENT OF THE  
HIATUS NORTH OF TOWNSHIP 60  
SOUTH, RANGES 35 AND 36 EAST  
- - - - -

The hiatus is placed north of the north line of Township 60 South, Ranges 35 and 36 East, because it is shown thus on map furnished by Mr. Elliot, dated January 6, 1948. Again, as stated in the disposition of Problem No. 1, no reason is given as to why the hiatus is placed

thus other than to avoid upsetting present land descriptions. Here, and again partially repeating, the State could subdivide its unsurveyed land in any way it elected to do so and the January 6, 1948 map clearly indicates what the election was.

The computations from the survey made by the Biscayne Engineering Company show that it is 10.67 miles north and south from the center of Ingraham Highway where it runs in an easterly and westerly direction through Township 59 South, Ranges 35 and 36 East and the center line of the same highway where it runs in an easterly and westerly direction through Section 28, Township 60 South, Range 34 East. However, this distance north and south through normal sections in Township 60 South, Range 34 East, is 4.75 miles and through normal sections in Township 59 South, Range 35 East is 3.50 miles or a total of 8.25 miles. The difference between 10.67 and 8.25 miles is 2.42 miles, which is the north and south measurement of the hiatus. Likewise, by computations, previously explained, this hiatus is 11.75 miles easterly and westerly.

D - THE PLACEMENT OF THE HIATUS AND THE  
RANGE LINES ALONG THE WEST SIDE OF  
TOWNSHIP 59 SOUTH, RANGE 35 EAST,  
ALONG THE WEST SIDE OF TOWNSHIP 59  
SOUTH, RANGE 37 EAST AND THE TOWNSHIP  
SHIP LINES FOR TOWNSHIP 59 SOUTH,  
RANGES 36 AND 39 EAST AND THE PRO-  
JECTION THEREON OF THE SECTION LINES

- - - - -

Since Coast and Geodetic Survey maps do not cover much of the area in question, we project all township and section lines, and the hiatus, on aerial photographs, which are also made up at 3.167 inches to the mile, and upon our 1/2-inch per mile base map. As previously indicated, it should be noted that this projection onto the aerial photographs throws the section lines, or subdivision thereof, onto canals, ditches and roads. This is the normal location of such physical features. Attention is invited particularly to where the Ingraham Highway crosses the range line between Ranges 36 and 37 East. The highway jogs south at this line as it runs westerly. This is exactly what one would expect normally to find. Where an old highway location crosses from one township to another, which has been surveyed from different datum, the highway usually jogs the same amount as the offset in the section lines.

As a further check to the location of the west line of Townships 58 and 59 South, Range 37 East, we find, from maps prepared in 1946 by the Soil Conservation Service of the Department of Agriculture

as a compilation from official and private sources, that this line is of a varying distance of approximately 0.25-mile west of the 80°40' west meridian of longitude throughout the two townships. Our projection of this line upon our base map and the aerial photographs check this distance from the meridian quite accurately.

### PROBLEM NO. 3

A - THE LOCATION OF THE WEST RANGE LINE OF RANGE 37 EAST NORTHWARD FROM THE NORTH LINE OF TOWNSHIP 59 SOUTH, RANGE 36 EAST, TO THE TAMiami TRAIL, WHICH IS THE MINIMUM AND MAXIMUM NORTH PARK BOUNDARY AND THE PROJECTION OF THIS LINE AND TOWNSHIPS AND SECTIONS EASTERLY THEREOF

- - - - -

The map dated January 6, 1948, furnished by Mr. Elliot, shows a north and south hiatus between Ranges 36 and 37 East, running northward from the north line of Township 59 South, Range 36 East. Here again the State, which has final authority regarding the subdivision of its lands, has elected to place the hiatus thus. However, we can locate the west line of Range 37 East quite definitely as a further disposition of this problem and show, in the disposition of Problem No. 4, the extent of the hiatus, from available information other than that shown on this particular map.

Sheets Nos. 29, 34 and 37 prepared by the Soil Conservation Service of the Department of Agriculture in 1946, from official and private sources, titled "Florida Physical Land Conditions" show the range line of Range 37 East from the north line of Township 50 South, northward to the Tamiami Trail. This line, as shown on these maps, approximates 0.25-mile from the 80°40' west meridian of longitude from the north line of Township 50 South to about the middle of Township 55 South. This seems to be fair surveying in view of the range line having been carried northward for approximately 27 miles.

From the middle of Township 55 South to the Tamiami Trail, the distance between the range line and meridian line varies from approximately 0.25-mile to 0.40-mile. There is no positive reason known why this variation of distance between the range and meridian lines exists, though it seems logical that it is caused by differences in surveys and through efforts of various surveyors to match datum east and west of the range line between Ranges 36 and 39 East, and north and south along the township line between Townships 54 and 55 South.



By examination of Sheet No. 35 of the same series of Soil Conservation Service Maps, the different datum just mentioned will be noted. The datum apparently matches along the township line between Townships 54 and 55 South immediately south of Miami, as will be noted on this same Sheet No. 35, but digresses in both distance and bearing going westerly along this line until the range line between Ranges 38 and 39 East is reached. At this point the digression is so pronounced that, in effect, another hiatus is created. However, this digression is not shown as a hiatus but all surveys show Lots 1 to 6 in Township 55 South, Ranges 37 and 38 East. These lots become, in actuality, parts of Township 55 South, Ranges 37 and 38 East. This condition is fully reflected on Sheets 34 and 35 of the series of Soil Conservation Service Maps. Attention is particularly called to the jog in the road, known as Krome Road, which runs north and south along the west line of Range 39 East, where this road borders along the southeast side of Lot 1, Township 55 South, Range 38 East. This jog accentuates the difference in datum both north and south, and east and west.

Furthermore, it is very significant that Krome Road is the only physical feature that runs northward all the way from the Homestead vicinity to the Tamiami Trail. It seems to be beyond question that this road is located along the range line between Ranges 38 and 39 East by design and not by accident.

The facts that the Biscayne Engineering Company have ties to this line south of Homestead and that Krome Road follows it north of Homestead seems to indicate fully that this line is one that can logically be assumed to have been used as a beginning of surveys westerly.

We now project, on our base map, the west line of Range 37 East northward from the north line of Township 50 South, as previously outlined.

Although only Townships 56 and 57 South, Range 37 East are in the park or any proposed extension thereof, we also project true townships and sections eastward from the west line of Range 37 East and northward from the north line of Township 58 South to the north line of Township 54 South, making due correction for the lots along the north line of Township 55 South, Ranges 37 and 38 East. We also project Township 58 South, Ranges 38 and 39 East, though not within the park or any proposed extension thereof, in order to show, on our base map, U. S. Highway No. 1 from Homestead southward to the Florida Keys.

It will be noted that the various roads, as shown on Sheets 29, 34, 35, 37 and 38 of the Soil Conservation Service Map, fit the projections on our base maps as to township and section location.

PROBLEM NO. 4

A - VERIFICATION AND EXTENT OF THE HIATUS  
NORTH OF THE NORTH LINE OF TOWNSHIP  
59 SOUTH, BETWEEN RANGES 36 AND 37 EAST  
- - - - -

The general Land Office, from 1881 to 1886, made exterior boundary surveys of the following Townships:

Township 53 South, Ranges 30 to 36 East  
Townships 54 to 57 South, Ranges 33 to 36 East  
Township 54 South, Ranges 30 to 31 East  
Townships 54 and 55 South, Range 32 East  
Township 58 South, Ranges 35 and 36 East

Although the field notes covering these surveys have never been reduced to official plats, the notes themselves indicate definitely that all surveying errors have been distributed properly so that the townships are 6 miles square.

Although the map of January 6, 1948 from Mr. Elliot shows the hiatus located between Ranges 36 and 37 East, north of the north line of Township 59 South and we could logically locate it thus on our maps without additional information, we show from other facts hereinafter explained, that it is so located.

In 1933 General Land Office map, previously mentioned in the disposition of Problem No. 1, shows that the range line between Ranges 31 and 32 East through Townships 51 to 53 (incl) South very nearly coincides with the  $81^{\circ}10'$  meridian of longitude. We have previously shown in the disposition of Problem No. 3 that the west line of Range 37 East is approximately 0.40-mile west of the  $80^{\circ}40'$  meridian of longitude at the Tamiami Trail. By proper allowance for meridian of longitude divergence, it has been calculated that it is 31.20 miles between the  $80^{\circ}40'$  and  $81^{\circ}10'$  meridians of longitude. However, we have 5 full townships plus 0.40-mile or 30.40 miles of surveyed distance. This indicates that the hiatus is 0.80 mile wide at the Tamiami Trail, the north park boundary.

Again, by calculation, we find that it is 31.25 miles between the two meridian of longitude lines, just mentioned, at the north line of Township 59 South. We have previously shown by the disposition of Problem No. 3 that the west line of Range 37 East at the north line of Township 59 South is 0.25 mile west of the  $80^{\circ}40'$  meridian of longitude. Thus, we have 30.25 miles of surveyed distance between the two meridian

lines and an actual distance of 31.25 miles. This indicates that the hiatus is 1.0 mile wide at the north line of Township 59 South.

It should be particularly noted that the map of January 6, 1948, furnished by Mr. Elliot shows, by observation, that the hiatus is wider at the south end than at the north end, which fact we have apparently proven.

Although physical features within the north, north central and northwest section of the minimum park boundary that might be used as a check on the projection of land lines are practically non-existent, we do find one such feature. The Coast and Geodetic Survey Map, showing the area along the Gulf of Mexico south of Alligator Cove and Porpoise Point, shows a canal dug in the shape of an inverted "L". By projecting on the Coast and Geodetic Survey map true townships and sections westerly from the range line between Ranges 34 and 35 East, we find that the north-south portion of the canal falls on the section line between Sections 27 and 28, and 33 and 34, Township 56 South, Range 31 East. Also, by projecting northerly from the north line of the east-west hiatus (previously explained and hereinafter further described as to location and extent) we find that the east-west portion of the canal falls upon the north line of south half of the southwest quarter of Section 27 mentioned above. Therefore, this portion of the canal is 1.25 miles north of the north line of Township 57 South. The east-west portion of the canal also lies along the  $25^{\circ}33'41''$  parallel of latitude. That the canal has been dug along the subdivision line of a land section seems apparent. Again, this was undoubtedly by design and not by accident.

By going outside the minimum park boundary in the north Monroe County and south Collier County, we find that we can check on a well determined physical feature. The so-called "Loop" road, State Highway No. 94, which leaves the Tamiami Trail in Township 54 South, Range 35 East and returns to the Trail in Township 53 South, Range 32 East, follows the section lines between sections 14, 23, 26 and 35 and 15, 22, 27 and 34 in Township 53 South, Range 32 East. Though road survey notes could not be found, the latest official Collier County map, dated April 7, 1947, shows the road thus and no evidence could be found to place this road elsewhere.

As a further check on our projection of township and section lines, we find on Sheet No. 27 of the Series of Soil Conservation Service Maps, previously described in the disposition of Problem No. 3, that the range line between Ranges 31 and 32 East, where it crosses Township 52 South, practically coincides with the  $81^{\circ}10'$  meridian of longitude.

A trip to Everglades, the County seat of Collier County, was made on August 9, for the purpose of endeavoring to find additional information regarding surveys and plats in south Collier County and north Monroe County.

It was found that Collier County, through its County Engineer, Mr. W. H. Turner, maintains one of the best sets of Township plats that the writer has been privileged to witness. These plats indicate that, where old General Land Office surveys have been made, as many of the old survey points as could be found are tied to and the County Surveys, with one exception that will be covered hereinafter, have been projected from these points in accordance with official Government procedure.

It was found that many of the old original survey points within and along the north and west lines of Township 52 South, Range 33 East, had been located by the County Engineer and that the section lines within the entire township had been retraced as accurately as possible. Of particular importance to us, it was noted that the old original northwest corner of the township had been located. The distance between this point as scaled on the Collier County map, the 1933 General Land Office map, and Sheet No. 27 of the series of Soil Conservation Service maps and the 81°10' meridian of longitude is virtually the same.

B - THE LOCATION AND EXTENT OF THE  
OFFSET IN THE MONROE-DADE COUNTY  
LINE (THE RANGE LINE BETWEEN  
RANGES 34 AND 35 EAST) NORTH OF  
SOUTH LINE OF TOWNSHIP 58 SOUTH  
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We have shown heretofore in our disposition of Problem no. 1 that there is no offset in the range lines west of Range 36 East, where these lines cross the north line of Township 60 South.

We have also shown in the disposition of Problems Nos. 1 and 2 that there is no offset in the range line between Ranges 34 and 35 East between Florida Bay and the south line of Township 58 South.

It has also been shown in the disposition of Problem No. 2 that it is 12.75 miles from the range line between Ranges 36 and 37 East to the range line between Ranges 34 and 35 East across Township 58 South.

Furthermore, we have shown in subsection "A" above that there is 1.00 mile hiatus between Ranges 36 and 37 East at the north line of Township 59 South.

Therefore, it appears evident that there is 1.25 mile offset to the west in the range line between Ranges 34 and 35 East north of the north line of Township 59 South.

However, we have further verification as to the location of the Range line between Ranges 31 and 32 East, north of the south line of Range 58 South.

The Coast and Geodetic Survey Map, showing the town of Everglades, indicates a canal running north and south beginning about 2/4 mile south of the town. This canal line lies immediately west of the 81°23' meridian of longitude. By computation this canal is 13.50 miles west of the range line between Ranges 31 and 32 East. It appears then that this canal was dug along the north and south center line of Section 14, Township 53 South, Range 29 East. Again, we firmly believe that the location of this canal is fixed by design and not by accident. By projecting normal townships and sections on the Coast and Geodetic Survey Map eastward from the range line between Ranges 31 and 32 East, we find that the range line between Ranges 34 and 35 East coincides with the location as previously determined.

Furthermore, the information covered in the last paragraph above is substantiated by scaling on the 1933 General Land Office Map, previously referred to, the distance between the range line between Ranges 31 and 32 East to this canal and to a north and south street in the town of Everglades. This north and south street is shown on the 1933 General Land Office map but not on the Coast and Geodetic Survey Map.

**2 - LOCATION AND EXTENT OF EAST-WEST HIATUS  
NORTH OF THE NORTH LINE OF TOWNSHIP 59  
SOUTH AND WEST OF THE RANGE LINE BETWEEN  
RANGES 34 and 35 EAST**

This problem was considered to some extent in our disposition of Problem No. 1. However, a general study indicated that its final disposition should be made as a part of the problem involving the entire northwest section of the park as existing and proposed.

The hiatus has been located on the map of January 6, 1948, furnished by Mr. Elliot. It seems at this point to be appropriate to repeat that to place it on our maps in accordance with Mr. Elliot's map would be entirely proper, without any additional evidence as to its location, since the State of Florida can subdivide its lands as it sees fit. However, we can fix this hiatus from other available information.

We have shown in our disposition of Problem No. 1 that that east-west portion of the Ingraham Highway which lies in Section 28, Township 60 South, Range 30 East, lies on the  $25^{\circ}10'27''$  parallel of latitude. We have also shown that this portion of the road is 1.25 miles north of the north line of Township 60 South.

We have also shown that the canal in Section 27, Township 56 South, Range 31 East, is 1.25 miles north of the north line of Township 57 South and along the  $25^{\circ}33'41''$  parallel of latitude.

Lines of latitude are parallel to each other and, in southern Florida, the distance between minutes of latitude is approximately 6057 feet. Therefore, by calculation it is shown that it is 26.63 miles between the  $25^{\circ}10'27''$  and the  $25^{\circ}33'41''$  parallels of latitude. Since the highway is 1.25 miles north of the north line of Township 60 South and the canal is 1.25 miles north of the north line of Township 57 South, the distance between these township lines is also 26.63 miles. Furthermore, since there are four normal townships of 6 miles each, or a total of 24.0 miles between these township lines, it follows that the hiatus is the difference between the calculated distance of 26.63 miles and 24.0 miles or 2.63 miles. A mean average of various scaling along various township lines as shown on the 1933 General Land Office map shows a width of 2.60 miles for the hiatus. We have previously shown in our disposition of Problems Nos. 1 and 2 that this hiatus lies north of the north line of Township 59 South and between the west range line of Range 35 East and the Gulf of Mexico.

#### D - LOCATION OF TAMiami TRAIL ALONG NORTH PARK BOUNDARY

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State Highway records show that the Tamiami Trail lies slightly south of the section line where the Trail crosses Krome Road and that the Trail runs approximately south  $89^{\circ}50'$  west from this point westerly. This means that the distance from the north park boundary, which is the south right-of-way of the Trail, increases in distance from the section lines as the boundary goes westerly.

The distances have been calculated both from the deflection in bearing and from Coast and Geodetic Survey coordinates shown on the Soil Conservation Service maps to be 375 feet at the northeast corner and 390 feet at the northwest corner of the park. Also from these coordinates, it has been calculated that the north park boundary is 3.07 miles south of the township line between Townships 53 and 54 South. This distance is reflected in the recited distance of 0.93 mile, as will be noted on the 1/2-inch per mile base map, between the south line of Section 24, Township 54 South, Range 36 East and the park boundary.

2 - THE PLACEMENT OF THE NORTH-SOUTH  
AND EAST-WEST HIATUSES, AND THE  
NORMAL TOWNSHIPS AND SUBDIVISIONS  
THEREOF WEST OF THE NORTH-SOUTH  
HIATUS AND NORTH OF THE EAST-WEST  
HIATUS

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We now project upon our 1/2-inch per mile base map and upon the various Coast and Geodetic Survey maps the north-south and east-west hiatuses in accordance with information previously recited. We also project normal townships westward from the north-south hiatus and northward from the east-west hiatus in accordance with General Land Office Survey notes and find that such projections fit physical features as shown on the Coast and Geodetic Survey Maps.

We have now, by our disposition of Problems Nos. 1, 2, 3 and 4, located and projected upon our 1/2-inch per mile base map the entire park area, except for the many Florida Bay Keys, as well as the area outside and adjacent to the park. We have also projected Townships and subdivisions thereof upon various Coast and Geodetic maps and aerial photographs of 3.168 inches per mile.

PROBLEM NO. 5

A - LOCATION OF THE KEYS AND ISLANDS  
IN FLORIDA BAY AND THEIR PROJEC-  
TION UPON THE 1/2-INCH PER MILE  
BASE MAP AND AVAILABLE COAST &  
GEODETIC SURVEY MAPS

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The 1933 General Land Office map, previously referred to several times, indicates township corners south of the Florida mainland and east of Range 35 East and along both the Florida Bay and Atlantic Ocean sides of the main keys carrying U. S. Highway No. 1 to Key West.

By connecting these corners by lines to block out the townships, it is shown that apparently two sets of datum have been used in projecting the township corners and physical features on the map. It appears that one set of datum has been extended southward from the north line of Township 61 South eastward to the range line between Ranges 36 and 37 East and another set eastward and westward from the main keys carrying U. S. Highway No. 1. There are offsets in the township lines where the projection westward from the main keys meets the projection southward from the north line of Township 61 South.



These township corners have been projected on the 1933 map as a result of surveys, represented by plats, made as far back as 1870. Most of the surveys were made in the 10-year period between 1870 and 1880. However, certain keys lying in Township 61 South, Ranges 34 and 35 East were surveyed from 1916 to 1922.

The various plats prepared as a result of these surveys show the many keys and islands both named and unnamed. The 1933 map indicates that these keys and islands have been projected thereon in accordance with the plats. Furthermore, the 1933 map has been checked against all available Coast and Geodetic Survey Maps of the area involved and found to correspond in nearly every respect.

Therefore, since the 1933 map apparently represents conditions as they now exist and as this map and our base map are both drawn to the 1/2-inch per mile scale, the keys and islands have been located upon the base map by merely tracing them from the 1933 map.

We also project onto Coast and Geodetic Survey Maps the various lines and corners as shown on the 1933 General Land Office map and find that our projection conforms generally with the various plats of the area.

The disposition of Problems Nos. 1 to 5, inclusive, completes our 1/2-inch per mile base map, which may be used for general purposes, and the projection of land lines on Coast and Geodetic Survey Maps and aerial photographs, which may be needed in condemnation cases, and for other purposes requiring specific, detailed information.

Although our base and special mapping problems have been disposed of, and we believe such maps reflect a true picture of the area, we find there are special problems closely related to the mapping problem which should also be covered.

The so-called Livingston Survey has been mentioned heretofore several times. We have found that Mr. Livingston extended surveys east and west in accordance with normal official survey procedure. Just why he decided to survey land sections 1-1/4 miles long north and south, thereby obtaining 800-acre sections, is not known. It seems beyond question that he took the township line between Townships 60 and 61 South as "official" since Township 60 South, Range 37 East had been surveyed by the General Land Office and since the north line of this township had been extended westward several years previously for the State of Florida by U. S. Deputy Surveyor J. O. Fries. Livingston's plat, prepared in 1920 and amended in 1923, indicates no reason whatsoever as to why he projected 800-acre sections northward.

Moreover, in a letter of June 19, 1948, to former Land Acquisition Project Manager L. M. Gray, Mr. Elliot stated that it was his recollection that in 1912 Mr. Livingston made a trip to Tallahassee in regard to questions relating to the survey work he had previously started for the Model Land Company. Mr. Elliot further stated that he advised Mr. Livingston the procedure he would need to follow in order to have his survey accepted as official by the State. He was advised, according to Mr. Elliot, "of the procedure and conditions for so doing, and that the plan of placing the hiatus to the northward between Townships 58 and 59 seemed to be the best solution and would be satisfactory." In view of Mr. Livingston's apparent special effort to obtain instructions regarding his surveys, his disregard of these instructions seems most unusual.

In any event, his surveys were used by the Model Land Company to convey lands to many private parties and the descriptions in the deeds of conveyance are based on 800-acre sections. However, that the Model Land Company, a number of years ago, decided the 800-acre sections had no merit, is shown by the fact that the Company has issued several oil leases as covering 640 acres per section and 36 sections per township. Of course, the error in survey procedure has been taken care of in the Model Land Company conveyance to the United States by the obtaining of a quitclaim deed to the Company's entire holdings within the park boundary, in addition to a warranty deed covering its record holdings. This same procedure is being and will be followed in the acquisition of all other lands within the area, where such acquisitions are obtained by direct negotiations.

Also, because of the location of the various hiatuses, there are other privately owned lands, which are actually located on the ground differently from that as indicated in record title deeds. Here again we will acquire these lands by record title description, provided we are satisfied that the property exists and has not already been acquired from the State of Florida, and in addition obtain a cover-all quitclaim deed from the owner of record. It is believed that there will not be much controversy regarding the acreage of the smaller tracts because of different survey datum.

By deed of April 11, 1906, the State of Florida conveyed, by description, some 54,000 acres of land lying along the Gulf of Mexico to Joseph Jennings. Approximately 45,000 acres of this figure were subsequently conveyed, by description, to the Palgrove Company and to McDougal and Axelson. The remaining acreage is held in various small ownerships.

By our disposition of Problem No. 2 - Subsection "B", we have shown an offset to the west in the range line between Ranges 34 and 35 East, north of the south line of Township 58 South. This offset is approximately 1.25 miles.

We have also shown, by our disposition of Problem No. 4 - Subsection "C", that the hiatus between Townships 58 and 59 South, west of the range line between Ranges 34 and 35 East is 2.63 miles wide, which means that it is 2.63 miles between the north line of Township 59 South and the south line of Township 58 South.

The plat filed of record with the deed to Jennings, which purports to show the lands conveyed in the deed, makes no allowance for the hiatus or for the offset in the range line as recited above. The practical effect of this condition is to push a part of these lands, as described in the deeds, northward and westward into the Gulf of Mexico.

Therefore, by making proper allowance for these two conditions, we have calculated that the approximately 45,000 acres purportedly conveyed by Jennings to The Palgrove Company and McDougal and Axelson are reduced to approximately 40,000 acres. Moreover, this figure is further reduced to approximately 36,000 acres by the fact that the original deed to Jennings included by description a considerable acreage of lands, which we believe we can prove to be "sovereignty" lands, which the State of Florida had no authority to convey.

As regarding the Everglades National Park, we define "sovereignty" lands as those lands covered and uncovered by the daily ebb flow of normal tides. In words of practical application, we consider these "sovereignty" lands to be those lands lying underneath mean high tide. These lands belonged to the State of Florida by virtue of its sovereignty in consequence of becoming a State in 1845.

The Supreme Court of Florida, in Martin et al., Trustees of the State Internal Improvement Fund, v. Busch et al., has ruled that, where the State conveys lands to private parties, the actual lands so conveyed, regardless of description, are indeterminate until a survey locating the line between "sovereignty" lands and the uplands, thus separating these types of lands, has been made and that no "sovereignty" lands, as thus determined by survey, can be conveyed to private parties. In other words, the State has no authority to convey "sovereignty" lands to private parties. However, the State had ample authority to convey the "sovereignty" lands to the United States and has already done so.

The "sovereignty" lands have been investigated on the ground by the Staff of the Land Acquisition Office at various seasons of the year and at times when the tide would not be affected by the winds so that a line of mean high tide has been located on the Coast and Geodetic Survey maps.

It seems pertinent in closing our treatment of "sovereignty" lands to state that careful investigation by the Staff of the Land Acquisition Office discloses that there are several small tract ownerships which, we contend, are entirely "sovereignty" lands. That is to say, that there are several entire tracts, for which the "owner" has record title, which lie completely beneath mean high tide. The matter of sovereignty lands is one that, in all probability, will have to be settled by court action.

While it is believed that our projection of land lines on the 1/2-inch per mile base map correctly shows the Everglades National Park and surrounding areas as they exist, we have information that raises a question as to the proper position on the ground of the 1944 park boundary where this boundary runs north and south along the west line of Sections 20, 29 and 32, Township 54 South, Range 35 East; Sections 5, 8, 17, 20, 29 and 32, Township 55 South, Range 35 East; and Section 5, Township 56 South, Range 35 East. However, there is no question that these sections which lie immediately east of and adjoining the park boundary have been conveyed to the United States.

Moreover, this problem, however resolved, in no way affects the actual location, by description, of the land along the park boundary. However, it could involve the moving of this portion of the boundary to the east approximately 0.35 mile at the north end and 0.40 mile at the south end of the line described. This would have the practical effect of making those sections, which lie along the boundary inside the park, fractional rather than full sections, even though the perimeter boundary of the lands conveyed by the State to the United States by Deed No. 19035 is described as along the west line of the sections immediately inside the park boundary, as shown on the 1/2-inch per mile base map. Although they are not described as full sections, there are no indications that the State intended to convey other than full sections.

We have stated previously, and have so located on our base map, that the 81°10' meridian of longitude very nearly coincides with the range line between Ranges 31 and 32 East. The 1933 General Land Office map shows this range line as exactly coinciding with this meridian through Townships 54, 55, 56 and 57 South. To show these lines as coinciding on our small scale base map seems to be the only possible projection procedure.

Sheets 27 and 28 of the series of Soil Conservation Service maps show the range lines between Ranges 31 and 32 East to lie slightly east of the  $81^{\circ}10'$  meridian of longitude where these lines cross the Collier-Monroe County line. These Soil Conservation Service sheets also show the Coast and Geodetic Survey stations along the Tamiami Trail. From the Coordinate tables furnished by the Coast and Geodetic Survey, it has been calculated that it is 16.30 miles along the Collier-Monroe County line from the  $81^{\circ}10'$  meridian of longitude to the range line between Ranges 34 and 35 East, which is the Dade-Collier County line. It has also been calculated that it is approximately 16.35 miles from the  $81^{\circ}10'$  meridian to the northwest corner of Section 20, Township 54 South, Range 35 East and approximately 18.40 miles from the meridian to the southwest corner of Section 5, Township 56 South, Range 35 East.

These same Soil Conservation Service maps show that the section lines in Townships 52 and 53 South, Ranges 32, 33, and 34 East bear to the east, as they go southward. This condition reflects the east-west distances across these townships as being in excess of 36.0 miles as indicated above. However, only one of townships just mentioned has been surveyed completely by the General Land Office. This is Township 52 South, Range 33 East. Furthermore, as learned on our trip to Everglades, Collier County has retraced the Government survey of Township 52 South, Range 33 East and made its own surveys of Township 53 South, Ranges 33 and 34 East. Regarding the resurvey of Township 52 South, Range 33 East by Collier County, County Engineer Turner asserts, and the County plats so show, that many of the original survey points were found. It was noted by the writer that many of the sections were approximately 61 chains across according to the County survey. However, the General Land Office plats show virtually all sections to be 80 chains square. Moreover, the County surveys of Township 53 South, Ranges 33 and 34 East also deviated considerably from true townships.

Although the Soil Conservation Service maps do not indicate source of information as to section line projection on the maps, it seems evident that Collier County or local surveys or both were used. The Collier County plats reflect to some extent this bearing of section lines to the east as they go south to the Monroe County line. Of greater significance, however, is the placing of the Coast and Geodetic Survey stations upon these maps from which calculations show the excess of 0.30 mile in the distance from the  $81^{\circ}10'$  meridian of longitude to the common corner of Townships 53 and 54 South, Ranges 34 and 35 East. This is true in spite of the facts that the Government survey notes reflect true townships and that Collier County has found enough original corners to retrace township 52 South, Range 33 East.

The trip to Everglades on August 9 was made for the purpose of endeavoring to bring additional light on the matter of these excess distances. County Engineer Turner stated that the common corner of Townships 53 and 54 South, Ranges 34 and 35 East, which is also the intersection of Collier, Dade and Monroe Counties, has been located and accepted by all concerned for many years. The Tamiami Trail also crosses this common corner. He further stated that he had accepted it as authentic in all of his surveys. Yet it is evident that it does not fit official Government surveys. The actual point lies in the middle of the pavement of the Tamiami Trail some 20 to 25 feet east of a stone archway indicating the entrance to Collier County.

A survey by the Fish and Wildlife Service in 1948, for the purpose of locating and posting the park boundary corner at the northwest corner of Section 20, Township 54 South, Range 35 East, also indicates this discrepancy in distance. Its survey, however, was also based on Collier County datum.

The practical effect of this condition, as far as it concerns lands in Collier County, is of small consequence at the present time. Should the park boundary ever be extended to include Collier County privately-owned lands, these lands would be purchased by warranty deeds in accordance with descriptions recited in record deeds and by quit-claim deeds covering any and all lands owned by various parties within the perimeter park boundary. This would eliminate any question of survey.

However, it appears that these Collier County surveys have been extended southward across the Collier County line into Monroe County. Just how or why this has been done could not be determined. In any event, most of the lands lying in Sections 19, 30 and 31, Township 54 South, Range 35 East; Sections 6, 7, 18, 19, 30 and 31, Township 55 South, Range 35 East; and Section 6, Township 56 South, Range 35 East are privately owned. The lands adjoining these sections to the east are now in Government ownership, having been conveyed by the State of Florida.

It seems then that, though the park boundary is located correctly on the map in accordance with Government surveys and procedure derived therefrom, it might be contended by the private owners that their lands actually extend easterly into the park approximately 0.35 mile at the north end of this portion of the boundary and approximately 0.40 mile at the south end. In spite of this, we cannot justifiably deviate in our mapping from Government survey datum. Our entire mapping projection is based on this datum and procedure derived therefrom. To deviate therefrom would undoubtedly have an adverse effect on our entire subsequent acquisition program. There seems to be only one disposition of this

problem. Mr. Elliot, whose visit to the Land Acquisition Office on August 17 will be covered briefly later, gives approval to this disposition.

It appears we must logically stand upon the Government surveys of the township boundaries as the only "official" data and say that any purportedly privately-owned land that might actually be located within the park along the line under consideration, as shown on our base map, has no basis in fact and that all territory lying east of this line is Government owned, having been conveyed to the Government by the State of Florida. Furthermore, since normal survey procedure would place any overages or deficiencies in distances across townships in the westernmost tier of sections, we might logically say that this westernmost tier should be fractional rather than the tier just inside the park, even though conveyances to private parties indicates they were full sections. Moreover, these privately-owned lands have never been fenced or otherwise segregated from the lands that were State-owned, as far as could be determined. However, by taking this position, the park boundary would be located (and probably posted at intervals) across purportedly privately-owned lands. Moreover, in so doing it might be said we were deviating from our policy, which to some extent is based on Mr. Elliot's request not to upset existing property lines, even though these property lines had never been located on the ground by survey.

On the other hand, not to take this position would undoubtedly complicate matters in our dealings with or probable condemnation proceedings against the Palgrove Company and others, since there are many indications that these Collier County surveys have been extended into north Monroe County.

It seems then that we must contend, and defend our contention strongly, that the park boundary, as shown on the 1/2-inch per mile base map, is correctly located and that there are no privately-owned lands within the park along the portion of the boundary under consideration.

Mr. Elliot spent most of August 17 in the Land Acquisition Office. Our mapping procedure and the special problems relating to the mapping were thoroughly discussed with him. He considered each problem and our disposition thereof individually very carefully. As a result, he gave approval to our mapping procedure and the resulting finished products.

This completes our presentation and disposition of the mapping problems for Everglades National Park as it now exists and as it might be enlarged, as these problems relate to the position and location of land lines.

*James M. Siler*

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